

Message

From: Price-Fay, Michelle [Price-Fay.Michelle@epa.gov]
Sent: 5/7/2021 3:21:04 PM
To: Rodrigues, Cecil [rodrigues.cecil@epa.gov]; Melvin, Karen [Melvin.Karen@epa.gov]
CC: Gardner, Allison [Gardner.Allison@epa.gov]; Gable, Kelly [Gable.Kelly@epa.gov]; Fulton, Jennifer [Fulton.Jennifer@epa.gov]; Martinsen, Jessica [Martinsen.Jessica@epa.gov]; Rogers, Rick [rogers.rick@epa.gov]; Pratt, Stacie [Pratt.Stacie@epa.gov]; McDonnell, Lee [McDonnell.Lee@epa.gov]; Rivera, Nina [Rivera.Nina@epa.gov]; Gillespie-Marthaler, Leslie [GillespieMarthaler.Leslie@epa.gov]; Armstrong, Joan [Armstrong.Joan@epa.gov]; Jenkins, Bill [jenkins.bill@epa.gov]
Subject: Fwd: FYI Only: Water articles in the Press - Harrisburg PA CSOs

This may not be new info with regard to Harrisburg but I wanted to be sure to share.

Sent from my iPhone

Begin forwarded message:

From: "Wall, Tom" <Wall.Tom@epa.gov>
Date: May 7, 2021 at 11:00:17 AM EDT
To: "Price-Fay, Michelle" <Price-Fay.Michelle@epa.gov>, "Gillespie-Marthaler, Leslie" <GillespieMarthaler.Leslie@epa.gov>
Cc: "Kloss, Christopher" <Kloss.Christopher@epa.gov>
Subject: FYI Only: Water articles in the Press - Harrisburg PA CSOs

Scroll down to 5th story

From: Bravo, Antonio <Bravo.Antonio@epa.gov>
Sent: Friday, May 7, 2021 10:06 AM
To: OW-OWOW-EVERYONE <OWOWOWEVERYONE@epa.gov>
Subject: FYI Only: Water articles in the Press

Green Wire: Biden's conservation plan puts WOTUS in the crosshairs

A vision the Biden administration laid out today for preserving 30% of the nation's land and water by 2030 is already fueling calls for EPA to reverse a controversial Trump-era water rule that rolled back federal protection for wetlands and streams.

Biden officials today released "America the Beautiful," a framework for its ambitious conservation plan they said is locally led and nationally scaled ([see related story](#)). Over the next decade, the program — relying heavily on voluntary actions — will leverage ongoing restoration efforts with states, tribes and private landowners to protect large swaths of land and water.

While the plan appears to be focused on protecting ocean waters, Biden officials on a call with reporters today said that freshwater resources are also included and that identifying and conserving large swaths of land and water on private lands will have a positive knock-on effect for rivers and streams across the nation.

Indeed, the administration's plan includes principles that focus on fresh water, including restoring ecosystems to manage drought and flooding, and preserving access to hunting and fishing grounds. The plan also calls on agencies to support collaborative conservation efforts across the country and for the Fish and Wildlife Service to expand ongoing conservation efforts, including fish passage projects and state wildlife action plans.

Gina Raimondo, secretary of the Commerce Department, said on the call that the plan will protect "special ocean places" and critical fisheries, and the agency is ready to implement it, "including the expansion of the National Marine Sanctuary System and the National Estuarine Research Reserve System." NOAA will also work with regional fishery councils to identify areas that need to be protected, she said.

But some questioned the lack of firm policies in the plan and pointed to ongoing permitting under the Trump-era Navigable Waters Protection Rule ([*Greenwire*](#), March 19).

"Until they fix WOTUS, preserving large numbers of wetlands will be a voluntary effort or up to the states," said Mark Ryan, a former Clean Water Act attorney for EPA Region 10, referring to the waters of the U.S. (WOTUS) rule. "Good luck with that."

Chris Wood, president and CEO of Trout Unlimited, said that he's supportive of the initiative and that he hopes the Biden administration will come out with a more fully formed policy and restoration agenda that provides a map for achieving those goals.

Addressing the Navigable Waters Protection Rule needs to be first on that to-do list, he said. Without that, the whole effort could be compromised, Wood added.

"Before you build a house, you have to make sure the foundation is strong," said Wood. "The Clean Water Act is the predicate upon which 30x30 and any other conservation effort of any other administration should rest."

Freshwater biodiversity concerns

Bruce Stein, chief scientist and associate vice president for the National Wildlife Federation, said the Trump-era rule is indeed "a huge deal," but it's not the only thing that matters.

Stein said that the "America the Beautiful" effort is high level and doesn't include many specific actions but that any plan that seeks to stabilize biodiversity loss is going to have to focus on freshwater systems.

"Freshwater biodiversity species are disproportionately at risk compared to terrestrial," he said.

Stein said portions of the report are tied to aquatic language, including a call to expand collaborative conservation of fish and wildlife habitats and corridors, and a mention of state wildlife action plans, which are focused on proactive conservation of at-risk species.

"In many states, a lot of that work is focused on freshwater aquatic systems, and again that's because freshwater species are so disproportionately impaired compared to many others," he said.

Stein also noted the plan focuses on jobs tied to restoration and resilience, and that includes watershed restoration.

"Yes, WOTUS has to be fixed, we think, in order to really fully protect wetlands," he said. "But conservation and restoration opportunities for fresh water goes well beyond that."

The Biden administration is also trying to find a way through the plan to productively and voluntarily engage private landowners, a sector that's going to be the most skeptical, he said, pointing to early attacks on the 30x30 effort even before it was released.

Trout Unlimited's Wood said the focus needs to be on healthy and functioning ecosystems, especially as it pertains to climate change and resilience. What's most critical, he said, is that those ecosystems can store, catch and slowly release water to protect against flooding.

Other groups also expressed support for the plan and called for action on WOTUS.

Amy Kober, a spokesperson for American Rivers, said the group applauds the Biden administration's effort and believes rivers and fresh water must be a priority, given the multitude of economic, public health, ecosystem and climate resilience benefits.

"One important component should be a strong resolution to the protection of the nation's critical small streams and wetlands through waters of the U.S.," she said.

Green Wire: Water treatment facility complete at former Air Force base

A \$17 million water treatment facility at the former Pease Air Force Base is operating, seven years after officials in Portsmouth, N.H., learned PFAS had contaminated a well.

The facility has already treated two wells. They are at nondetection levels for per- and polyfluoroalkyl substances, said Al Pratt, the city's water resource manager.

"It's working," he told Seacoastonline.com on Tuesday.

The facility will start removing PFAS, referred to as "forever chemicals," from a third well that was closed in May 2014. PFAS have been used since the 1950s in products such as firefighting foam, nonstick cookware and water repellent fabrics.

The water was contaminated by firefighting foam used at the former base, which is a Superfund cleanup site.

Local, state and congressional officials on Tuesday thanked Andrea Amico, a mother of three who is one of the co-founders of a community activist group that lobbied for blood tests for people exposed to PFAS and a health study.

Amico, whose family was exposed to PFAS, said she is "just humbled by the fact that people are recognizing the work that community advocates do."

Water World: EPA awards \$9M to Alaska for drinking water access

WASHINGTON DC -- The U.S. Environmental Protection Agency (EPA) announced water infrastructure funding totaling \$9 million for projects that will improve access to drinking water

for the Alaska Native Villages of Tuluksak and Stebbins. These grants illustrate the potential for EPA's water infrastructure programs to benefit communities, especially low-income communities where investment is needed the most. Through strong partnerships at the state and local level, water infrastructure investments can provide vital public health and environmental protections, create jobs in construction and operation, while saving money.

"At EPA, we're committed to improving water quality and to targeting funds to communities that need it most," said EPA Administrator Michael S. Regan. "This funding will improve public health by providing vital drinking water infrastructure for two Tribal communities in Alaska where access to clean drinking water is greatly needed."

"Even before the pandemic, many rural and remote communities were challenged with limited or non-existent water and wastewater. With the onset of COVID-19, the simple act of washing one's hands was taken for granted, but without reliable access to clean water, washing your hands is easier said than done. A recent fire in Tuluksak destroyed their only washeteria and water treatment facility, further complicating the issue and serving as a sad reminder of the basic infrastructure needs that must be addressed in rural Alaska," said U.S. Senator Lisa Murkowski. "Improving water and wastewater systems across the state has been a top priority in my role as an appropriator. I have worked hard to increase funding to the grant programs that benefit the state most including for our rural communities and remote villages. I commend the EPA for prioritizing access to safe, clean drinking water for Tuluksak and Stebbins. These significant investments in water infrastructure will not only improve the health and wellness of local residents, but also strengthen their economy and provide new job opportunities at a time when they are needed most. I remain committed to ensuring safe, clean water is available in every Alaskan community."

"Most Americans can't imagine living without clean running water or a flush toilet, but that is a reality for many Alaskans in some of our remote villages," said U.S. Senator Dan Sullivan. "The investment announced today by the EPA is a large step in working to tackle this inequity that exists in our state. I worked closely with Alaskans and with the EPA to prioritize Alaska's remote communities for the grant program I secured in the 2016 WIIN Act, and these awards for Alaska amount to nearly half of this year's total allocation. This announcement is especially meaningful for the people of Tuluksak, whose washeteria tragically burned down in January. I look forward to the day Alaskans in Stebbins and Tuluksak can break ground on these critical infrastructure projects and secure a safe, reliable source of drinking water for their homes."

The projects are funded under the Water Infrastructure Improvements for the Nation (WIIN) Act's Assistance for Small and Disadvantaged Communities Grant program. EPA will award \$1.5 million to the Alaska Native village of Tuluksak, a community of approximately 360 people, which had its only source of potable drinking water destroyed in a fire earlier this year. Combined with Indian Health Service funding, EPA's WIIN grant will be used to fully fund the replacement facilities.

EPA will also award \$7.5 million to Stebbins, a community of approximately 650 people. The village currently does not have a centralized drinking water or wastewater system. The \$7.5 million in funding will provide a sustainable water source for the community by providing piped water service to the unserved homes in Stebbins. The water source and raw water line will provide service to the existing water treatment plant and washeteria.

Bloomberg Law: Biden Enlists Ranchers, Tribes to Conserve 30% of Land and Water

The Biden administration is unveiling a plan to conserve 30% of U.S. lands and waters by the end of the decade, a top priority for environmentalists who see the initiative as a way to fight climate change and safeguard species on the brink of extinction.

The blueprint, set to be released by top administration officials Thursday morning, offers a broad-ranging strategy for encouraging tribes, farmers and ranchers to voluntarily protect land, including by enrolling territory in existing federal conservation programs and the creation of new parks near urban areas.

Yet it does not detail expansive new plans for buying private land or enshrining new national monuments -- ideas that have been battled by conservatives on Capitol Hill. The initiative also does not include specific financial pledges to encourage land protection or set mandates. Even the report itself acknowledges that it is "only the starting point" on a path to fulfilling President Joe Biden's conservation goal, with the outcome dictated by local communities, not the federal government.

Americans are being asked to "join together" in the conservation effort, wrote Interior Secretary Deb Haaland, Agriculture Secretary Tom Vilsack, Commerce Secretary Gina Raimondo and White House Council on Environmental Quality Chair Brenda Mallory in a letter accompanying the report.

Read More: Global Warming Forecast Improves Slightly After Biden's Pledge

"The president's challenge is a call to action to support locally led conservation and restoration efforts of all kinds and all over America, wherever communities wish to safeguard the lands and waters they know and love," the four officials wrote.

The effort builds on a campaign pledge by Biden and an executive order he issued in January directing federal agencies to collaborate on the conservation goal. While Republicans in Congress and in statehouses are likely to oppose the program outright, the scaled-back, voluntary approach could have more appeal with Republicans from western states who have regarded previous Democratic environmental initiatives as regulatory juggernauts and potential land grabs.

By almost any measure, the U.S. has a long way to go toward Biden's 30% target, with some records indicating just 12% of land and 26% of waters have been designated for permanent protection. That may undercount how much territory is actually safeguarded, and the administration is now planning to develop an American Conservation and Stewardship Atlas to better measure protected areas. A new interagency working group would focus on the survey.

Environmentalists praised the initiative, saying it would help drive the restoration and conservation of shrublands, waterways and grasslands critical to the survival of some species. The destruction and fragmentation of milkweed-filled meadows and other habitat along the Monarch butterfly's migration flyway through the American Midwest, for instance, has been cited for declines in that species.

Read More: Biden 'Moratorium' on Oil Leasing Targeted by GOP-Led States

The plan "rightly focuses on collaboration and restoration" instead of "regulation and designations" to hit the 30% conservation target, said Collin O'Mara, president of the National Wildlife Federation. "It's a thoughtful blueprint for how we can work together to save one-third wildlife species at heightened risk of extinction, revitalize rural and urban communities, strengthen the outdoor economy and bolster resilience to escalating climate-fueled megafires, floods, and hurricanes."

The administration envisions conservation extending to working lands -- such as farms where the use of no-till farming and other agricultural practices can reduce erosion and enhance the storage of carbon in soils. Farmers can tap into existing U.S. Department of Agriculture programs that reward the efforts. And while the commitments are made on a voluntary basis, federal programs can ensure they confer enduring protection.

In the administration's vision, science and humanitarian benefits would guide and inspire the conservation effort. The report also takes pains to emphasize the need to "respect the rights of private property owners" and preserve ranching in the West.

"The conservation value of a particular place should not be measured solely in biological terms, but also by its capacity to purify drinking water, to cool the air for a nearby neighborhood," or "to provide a safe outdoor escape for a community that is park-deprived," the report says.

Keit Schweigert, Fox 43, Clean water advocates file federal complaint over sewage overflows from Harrisburg into Susquehanna River

<https://www.fox43.com/article/news/local/clean-water-advocates-file-federal-complaint-over-sewage-overflows-from-harrisburg-into-susquehanna-river/521-bf557d0b-e4eb-488b-a597-58c3592cac31>

The groups are seeking to intervene in a federal and state lawsuit against Harrisburg that they claim has "failed to produce any real progress" in halting overflow.

HARRISBURG, Pa. — A clean water advocacy group announced Thursday that they've filed a complaint in federal court demanding that the Environmental Protection Agency and Pennsylvania end Harrisburg's routine piping of raw sewage and stormwater into the Susquehanna River, the biggest tributary of the Chesapeake Bay.

The Lower Susquehanna Riverkeeper Association, represented by the Environmental Integrity Project, filed the legal action in the U.S. District Court for the Middle District of Pennsylvania.

They are seeking to intervene in a six-year-old federal and state sewage lawsuit against Harrisburg that they claim has "failed to produce any real progress" in halting overflows that average about 800 million gallons a year.

"Harrisburg's sewage problem is an environmental justice issue," said Ted Evgeniadis of the Lower Susquehanna Riverkeeper Association in a press release announcing the

filing. "The toxic discharges not only impact places downriver, they threaten the health of those living in our own state capitol.

"It's outrageous that the Pennsylvania Department of Environmental Protection won't even stop the sewage being piped from its own headquarters directly into the river. The city's residents have the right to safely recreate and enjoy the resources of the river in their own backyards."

For more than a century, Evgeniadis said, Harrisburg has had a combined sewage and stormwater system that is designed to overflow into the river from 59 outfalls whenever it rains. The Environmental Protection Agency and Pennsylvania Department of Environmental Protection sued Harrisburg Capital Region Water over water pollution violations from the antiquated system in 2015.

That lawsuit – still pending in court – was supposed to produce a final consent decree that would halt the sewage violations, Evgeniadis said.

But more than six years later, the Governor's Mansion and State Office Complex, among other buildings in the Harrisburg area, are still piping raw sewage into the river about once a week under a weak and temporary "partial consent decree" that sets no deadline for closing the sewage outfalls or fixing the problem, Evgeniadis said.

"The vast majority of people living in Harrisburg are people of color and more than a quarter of residents are living below the poverty line," said Mary Greene, deputy director of the Environmental Integrity Project. "The ongoing sewage releases are an environmental justice problem that must be addressed so that the people of Harrisburg can safely use their own waterfront to fish and swim.

"We are seeking to intervene because it's past time that EPA and the state impose a final consent decree that restores compliance with the Clean Water Act."

Harrisburg Capital Region Water reported releasing 902 million gallons of sewage mixed with stormwater into the Susquehanna River in 2019, 1.4 billion gallons in 2018, 899 million gallons in 2017, and 789 million gallons in 2016, with no signs of improvement since the 2015 lawsuit and partial consent decree, the advocacy groups said.

The agreement that DEP and EPA reached with Harrisburg in 2015 was unlike consent decrees approved for many other older cities with combined sewage and stormwater systems in that Harrisburg's did not require the construction of any storage tanks to temporarily hold overflows during storms, the closure of any sewage outfalls, or any other systemic changes.

Bacteria monitoring along the Harrisburg waterfront performed by the Lower Susquehanna Riverkeeper in June and July of 2020 found E coli bacteria concentrations that averaged 2.5 times higher than safe levels for swimming or water contact recreation, Evgeniadis said. Bacteria levels downstream of Harrisburg averaged nearly three times higher than they were upstream of the city's sewage and stormwater outfalls.

Harrisburg Capital Region Water released a plan in 2018 that proposes to spend \$315 million over 20 years to slightly reduce, but not stop, the sewage overflows, Evgeniadis said.

However, about two thirds of this money (\$214 million) is meant to simply catch up with long-neglected maintenance of the sewer system – which EPA has publicly stated is not an effective method of halting combined sewage overflows.

"If we're going to invest a substantial amount of money to fix this issue, we need to make sure those plans are actually going to work and improve water quality around Harrisburg and downstream," said Evgeniadis. "It's also obvious that the state government has a moral obligation to stop the pollution from its own buildings and its own state capital. It's not fair to make the people of Harrisburg pay for all of this."

Kipp Tab, Coastal Review Online, [More Delay for Mid-Currituck Bridge](https://www.coastalreview.org/2021/05/more-delay-for-mid-currituck-bridge/)
<https://www.coastalreview.org/2021/05/more-delay-for-mid-currituck-bridge/>

For those hoping for tangible progress on the long-awaited Mid-Currituck Bridge, there wasn't much good news in the presentation from Project Manager Jennifer Harris and North Carolina Turnpike Authority Chief Engineer Richard Rochelle at the May 4 Southern Shores Town Council meeting.

The bridge, a 4.7-mile span that will cross the Currituck Sound connecting Aydlett on the mainland with Corolla, has been in the planning stage or under discussion for over 20 years. The bridge is part of the North Carolina Turnpike Authority and will be a toll road when and if it is completed.

With a lawsuit from the Southern Environmental Law Center, or SELC, still unresolved, Rochelle said the start date for bridge construction has been pushed back from October 2021 to June 2022. And even if the project begins then, he said it would be at least another two years before completion of the bridge.

The construction of the bridge is seen by residents of Southern Shores as a long-sought remedy to the summer seasonal traffic that can choke their streets and neighborhoods.

"My concern is that every year that goes by and this doesn't happen, is one more year we deal with three months of really intense weekend traffic," Southern Shores Mayor Tom Bennett said in an interview. "The meeting ... was kind of what I expected," he added, commenting on the bridge presentation to the council. "It was people who are trying to make it happen and doing the best they can. But their hands are tied because of the lawsuit."

Rochelle began the discussion by pointing to lawsuit challenging the Record of Decision that the SELC filed on behalf of the North Carolina Wildlife Federation and No Mid-Currituck Bridge, a group of local citizens opposed to the bridge.

There is no court date scheduled at this time for the lawsuit, according to Kym Hunter, Senior Attorney for the SELC, although legal briefs in the matter are being filed. The SELC filed its brief on April 30. Hunter said the state's brief is due by the end of the month. After that there will be a wait for a court date to be scheduled.

"There could be a hearing. This judge usually takes a while to decide these cases," Hunter said. "I would be surprised if it took her another six months after that."

In the meantime, there has been some regulatory progress made, according to Project Manager Harris. "We've gotten what they call a preliminary navigation clearance determination," she said. "We should have at least twenty feet of clearance above mean high water and at least 40 feet of clearance through the main navigation span of the bridge."

Because the bridge spans a navigable waterway, it cannot be built without Coast Guard approval. However there are number of other permits that will be needed for the project to move forward. Permitting agencies include North Carolina Department of Water Quality, the Corps of Engineers, Environmental Protection Agency and the National Marine Fisheries.

Hunter said that to her knowledge, the permitting process had not begun.

Bed Adlin, South Seattle Emerald, [SHAPE OUR WATER: MAGDALENA 'MAGGIE' ANGEL-CANO](#)

Shape Our Water is a community-centered project from Seattle Public Utilities (SPU) and KVRU 105.7 FM, a hyperlocal low power FM station in South Seattle, to plan the next 50 years of Seattle's drainage and wastewater systems. Funded by SPU, the project spotlights members of local community-based organizations and asks them to share how water shapes their lives. Our latest conversation is with Maggie Angel-Cano, community engagement and communications specialist for the Duwamish River Cleanup Coalition.

Growing up in South Park, Maggie Angel-Cano spent years without realizing Seattle's only river ran through her neighborhood.

"We had no idea there was a river in the community," she said. "We just, you know, lived our daily life: work, school, back home."

It didn't help that the waterway was more or less off-limits. Around the time her family moved to the area, about 20 years ago, the Environmental Protection Agency declared the Duwamish River one of the most polluted places in the country. Groups such as the [Duwamish River Cleanup Coalition](#) (DRCC), the environmental justice nonprofit where Angel-Cano now works, have been part of restoring the river's ecology ever since. The group hosts regular cleanup activities and educational events, and it advocates on behalf of marginalized communities in the Duwamish Valley that have borne the brunt of industrial pollution.

Much of Angel-Cano's activity at DRCC focuses on engaging youth and encouraging them to develop close connections to local water systems, both in their personal lives and in some cases professionally. She's currently helping to launch [Maritime High School](#), a school focused on the environment, marine science, and maritime careers. It's scheduled to welcome its first class of ninth graders in September.

The [school](#), a collaborative project between Highline School District, DRCC, the Port of Seattle, and Northwest Maritime Center, is designed to prepare students for jobs on or near the water. It will combine traditional classroom learning with hands-on experience and two days of fieldwork each week, with a learning hub in the Duwamish Valley. The school will also help students with tasks such as crafting a resume and applying to college.

"All kinds of opportunities that we don't see now are coming to our community," Angel-Cano said, including hands-on exposure to a variety of maritime careers as well as general life skills. "Financially, budgeting is something that traditionally I never got support with, and now our youth, we're hoping that they will."

Students in past DRCC programs would sometimes ask about what kinds of jobs are available along the Duwamish, she added, but often weren't prepared to pursue them.

Angel-Cano herself was about high-school age when she first became involved in environmental activism. When she was 14, her mother introduced her to Paulina López,

a social and environmental justice advocate who now serves as DRCC's executive director.

Maggie Angel-Cano (Photo: Chloe Collyer)

Angel-Cano became an early participant in what's now known as the Duwamish Valley Youth Corps, a DRCC program for young people that focuses on environmental justice and job skills, particularly among students of color, low-income families, and immigrants. Group activities such as regular adventures through the neighborhood inspired her to ask questions and get involved.

"We started being more conscious about what was surrounding us," she recalled.

That environmental mindset continues to this day. "Everything just kind of plays differently in my mind," she said. Visiting family in Oregon, for example, might prompt the question: "What's the stormwater process here?"

When she was in high school, Angel-Cano made a few suggestions on how a nearby park might be improved. After planning documents for the park were published, she was shocked to see some of her recommendations reflected in it.

"That's what empowered me," she said. "I was like, wow, my voice was heard!"

In college at the University of Washington, Angel-Cano studied gender, women, and sexuality studies. "For me back then, finding myself and learning about my identity and learning about others was really important to coming back to the community," she said.

After UW, Angel-Cano went back to South Park and the organization that first inspired her environmental stewardship. One of her first jobs was helping host the summer Duwamish River Festival, which celebrates the river and honors the Duwamish Tribe and their land.

She said there are all sorts of simple things residents can do to better respect local waterways, such as picking up pet waste so it doesn't drain into the Duwamish River or other nearby bodies of water. She also encouraged volunteering at community cleanups, which DRCC hosts on a monthly basis but are often arranged by other local groups.

"Just volunteer in those cleanups," Angel-Cano said, directing interested volunteers to DRCC's website and Facebook page. "You will not only be doing change, but you will be meeting your people."

In addition to her community outreach work and the launch of Maritime High School, Angel-Cano's responsibilities over the years have included leading boat tours on the very river she once didn't know existed. The tours have continued as online events during the pandemic in order to keep community connections strong.

"We used to do physical boat tours and just go up and down the river showing people what the industries along the river look like, and how it looks like from inside the river,"

she said, “but now we do those virtually. If you’re ever interested in anything like that or just talking to us about what you’ve noticed in your community, we’re more than happy to have a chat with you.”

Andrew Whelton, Wildfires are contaminating drinking water systems, and it's more widespread than people realize

<https://www.myjournalcourier.com/news/article/Wildfires-are-contaminating-drinking-water-16157412.php>

(THE CONVERSATION) More than 58,000 fires scorched the United States last year, and 2021 is on track to be even drier. What many people don't realize is that these wildfires can do lasting damage beyond the reach of the flames – they can contaminate entire drinking water systems with carcinogens that last for months after the blaze. That water flows to homes, contaminating the plumbing, too.

Over the past four years, wildfires have contaminated drinking water distribution networks and building plumbing for more than 240,000 people.

Small water systems serving housing developments, mobile home parks, businesses and small towns have been particularly hard-hit. Most didn't realize their water was unsafe until weeks to months after the fire.

The problem starts when wildfire smoke gets into the system or plastic in water systems heats up. Heating can cause plastics to release harmful chemicals, like benzene, which can contaminate drinking water and permeate the system.

As an environmental engineer, I and my colleagues work with communities recovering from wildfires and other natural disasters. Last year, at least seven water systems were found to be contaminated, suggesting drinking water contamination may be a more widespread problem than people realize.

Our new study identifies critical issues that households and businesses should consider after a wildfire. Failing to address them can harm people's health – mental, physical and financial.

Wildfires make drinking water unsafe

When wildfires damage water distribution pipes, wells and the plumbing in homes and other buildings, they can create immediate health risks. A building's plumbing can become contaminated by smoke getting sucked into water systems, by heat damaging plastic pipes – or contamination penetrating into the plumbing and leaching out slowly over time.

Since 2017, multiple fires have rendered drinking water systems unsafe, including the Echo Mountain, Lionshead and Alameda fires in Oregon, and the CZU Lightning Complex, Camp and Tubbs fires in California. Thousands of private wells have been affected too.

Being exposed to contaminated water can cause immediate harm, such as headaches, nausea, dizziness and vomiting. Short-term exposure to 26 parts per billion or more of benzene, a carcinogen, may cause a decrease in white blood cells that protect the body from infectious disease. Multiple fires have caused drinking water to exceed this level. A variety of other chemicals can exceed safe drinking water exposure limits too in the absence of benzene.

Households are not being adequately warned

In a survey of 233 households affected by water contamination, we found people reported high levels of anxiety and stress linked to the water problems. Nearly half had installed in-home water treatment because of uncertainty about the water. Eighty-five percent had looked for other water sources, such as bottled water.

In some cases, we found that advice from government agencies placed households at greater risk of harm. It has sometimes left people exposed to chemicals, caused them to needlessly spend money and given them a false sense of security. Certified in-home water treatment devices, for example, are tested only to bring down 15 parts per billion of benzene to less than 5 parts per billion, the federal standard. These devices are not tested to treat hazardous waste-scale contaminated water that's been found after wildfires.

Following the 2020 CZU Lightning Complex Fire near Santa Cruz, California, a local health department correctly warned private well owners not to use their water and to test it, but a nearby damaged water system and the state did not warn 17,000 people against bathing in the contaminated water. It was only after test results proved the water had been unsafe all along that the system owner and state advised against bathing in it. In Oregon, some damaged systems encouraged people to boil their drinking water, later finding that the water had benzene in it.

After the 2018 Camp Fire that devastated Paradise, California, the local health department correctly warned the entire county not to use or try to treat the drinking water, which had contamination above EPA's hazardous waste limit. But one water system and the state encouraged 13,000 people to try to treat it themselves.

In all of these cases, the U.S. Environmental Protection Agency chose not to compel water utilities to explicitly notify customers about the water contamination and its risk. Communities have received other bad information:

- Commercial labs and government officials recommended flushing faucets for 5 to 15 minutes before collecting a water sample, thereby dumping out the contaminated plumbing water meant for testing.
- Homeowners were led to believe a single cold water sample at the kitchen sink would determine if the hot water system and property service line was contaminated. It cannot.
- People were led to believe that benzene water testing would determine if any other chemicals were present above safe limits. This is not possible.

What to look for after a nearby fire

Signs of potential contamination after a nearby wildfire could be loss of water pressure, discolored water, heat damage to water systems inside and outside buildings, and broken and leaking pipes, valves and hydrants.

Drinking water should be assumed to be chemically unsafe until proven otherwise.

Once a system is contaminated, cleanup can take months. The water system will have to be flushed and tested regularly to track down contamination. Health departments should also issue guidance on how to test private wells and plumbing.

When testing plumbing, include the property service line as well as the hot and cold water lines. Before collecting a water sample, the water must sit long enough in the plumbing so contamination can be found – 72 hours was the Tubbs Fire and Camp Fire standard. Tests should look for more than benzene.

Who can help?

Many of the critical public health risks identified in our new study can be addressed by public health departments with financial support from state and local agencies.

Public health departments often have experience responding to water problems, such as legionella outbreaks, and can provide technical advice about both chemical exposures, building plumbing and private drinking water wells.